

In order to avoid unauthorised use of each remote unit 18, each supervisor is furnished with a unique identification code or PIN number which is fed into the processor unit 28 via the keypad 26. If the PIN number matches a reference PIN number in the memory 22 the remote unit 18 is activated or enabled. The reference PIN number may be downloaded from the base station 16 via the network 20.

Figure 3 of the drawings shows an embodiment of electronic circuitry of the remote unit 18. The unit 18 includes a conventional cellular telephone antenna 40 which is connected via line 42 to a standard cell phone receiver including a conventional pre-amp, local oscillator, mixers, IF amplifiers and detectors. The receiver 44 is coupled to a detector/decoder 46 which, in turn, is connected to the memory 22 and to the display 24 and a logic amplifier and digital interface. The unit 18 includes a PC compatible interface 48 for connection to computing facilities at the base station 16. Further, a transmitting arrangement 50 and a standard cellular telephone transmitter 52 are provided for communicating with the base station 16. A typical circuit diagram of the device or remote unit 18 is shown in Figure 4.

In the embodiment of the invention shown in Figures 1 to 4 of the drawings, the reference identification particulars are downloaded and stored in the remote unit 18. However, in other embodiments of the invention, as shown in Figure 5, the reference identification particulars are stored in the remote or base stations 16. In this embodiment, the vehicle identification particulars are fed into the device or remote unit 18 either manually or remotely by means of an electronic tag as shown in block 80 in Figure 5. The device 18 then communicates the

## 16

identification particulars via its transmitter arrangement 50 to an associated base station 16 which is part of a local area computer as shown at block 82. At the base station, the reference identification particulars are compared with the identification particulars fed into the device 18 and, if the vehicle particulars match those of a stolen vehicle, as shown at block 84, a link to the relevant authorities is provided as shown at block 86. The base station 16 may then retrieve reference vehicle particulars such as the colour, the make, or model of the vehicle and communicate them back to the device or remote unit 18 whereupon the data is displayed on its display 24. As shown at block 88, the supervisor may then compare the identification particulars received from the base station 16 in order to ascertain whether or not erroneous data has been entered into the remote unit 18. If there is a mismatch of data, the remote unit 18 may communicate a warning signal to the relevant authorities as shown by line 90.

Once the relevant identification particulars have been entered by the supervisor into the remote unit 18, the motorist can then go shopping whilst the car is being supervised by the supervisor. Upon entry of the vehicle identification particulars into the remote unit 18, a timer is set to time the duration for which the vehicle will be parked in the parking zone 12 so that an appropriate charge may be calculated upon return of the motorist. As shown at block 92, once the motorist returns to the parking bay or zone 12 data on the relevant parking bay is entered into the remote unit 18 which then calculates a monetary amount due for use of the parking bay. As shown at block 94, all payments received are communicated to the remote stations 16 for accounting purposes. Summaries of all financial transactions may then

17

be communicated to the control centre 13 as generally indicated by block 96.

Referring in particular to Figure 6 of the drawings, reference numeral 100 generally indicates the arrangement of parking zones 12 proximate a roadway 102. As mentioned above, each vehicle may include an electronic tag which contains the identification particulars of the vehicle. Accordingly, a remote interrogator 104 may be located proximate the parking zone 12 to read the electronic tag provided on the vehicle. In addition or instead, a conventional automated monetary value receiving device is provided.

The installation or system 10 provides a facility at the national control centre 13 to monitor use of a legal vehicle registration number at different locations or areas throughout the country. In particular, similar vehicle registrations are monitored and time durations between monitoring of the same registration number are determined to see if the distance travelled by the vehicle is feasible. If it appears that duplicate registration numbers exist, the appropriate authorities may be contacted for legal action.

The inventor believes that the invention, as illustrated, provides an enhanced installation 10 for monitoring the use of and identifying stolen vehicles. As the registration number of the vehicle requiring use of the parking bays is entered into the remote unit 18, each time a vehicle is parked the registration particulars may be compared with a reference database to identify the illegal use of vehicles.